REMARKS

This amendment is responsive to the Office Action dated January 11, 2008. Applicant has amended claim 33 and added claims 34-36. Claims 1-6, 16-22, 24-26 and 28-36 are pending.

Interview Summary

As a preliminary matter, Applicant thanks the Examiner for conducting the telephonic Examiner Interview of April 4, 2008. Examiner Ilwoo Park and Applicant's representative Daniel T. Lund were involved in the telephonic Examiner Interview.

The rejections of independent claims 1, 16 and 18 under 35 U.S.C. 103(a) as being unpatentable over Stefansky (US 6,226,143) in view of Schneider (US 6,363,487) were discussed. Also discussed were the rejections of dependent claims 2, 4, 26, 31 and 32 including the applicability of Glover (US 6,282,045) and Durrett (US 5,964,830) to such rejections.

Also discussed was a potential amendment to claim 1 to recite that the CPU generates read and write control signals. The Examiner indicated that the combination of such a feature with the currently-recited feature that the central processing unit CPU runs an operating system might overcome the current rejection of claim 1, but that further consideration and/or search would be required. With this amendment, Applicant has added new claims 34-36 to recite this feature as suggested by the Examiner.

No exhibits were introduced, and no agreement was reached with respect to the clams.

Claim Rejection Under 35 U.S.C. § 103

In the Office Action, the Examiner rejected claims 1, 5, 16-19, 22, 24-26, 29, 30 and 33 under 35 U.S.C. 103(a) as being unpatentable over Stefanksy (US 6,226,143) in view of Schneider (US 6,363,487). The Examiner also rejected claims 2, 6, 20, 21 and 32 under 35 U.S.C. 103(a) as being unpatentable over Stefanksy in view of Schneider as applied to claims 1 and 18 above, and further in view of Glover (US 6,282,045) and rejected claims 3 and 4 under 35 U.S.C. 103(a) as being unpatentable over Stefanksy in view of Schneider in view of Glover as applied to claim 2 above, and further in view of Durrett (US 5,964,830). The Examiner rejected claim 31 under 35 U.S.C. 103(a) as being unpatentable over Stefanksy in view of Schneider as applied to claim 1 above, and further in view of Durrett and rejected claim 28 under 35 U.S.C.

103(a) as being unpatentable over Stefanksy in view of Schneider as applied to claim 1 above, and further in view of well known in the art.

Applicant respectfully traverses the rejections. The applied references fail to disclose or suggest the inventions defined by Applicant's claims, and provide no teaching that would have suggested the desirability of modification to arrive at the claimed invention.

Claims 1-6, 25, 26 and 30-33

In the rejection of claim 1, the Examiner interpreted microcontroller 224 of Stefanksy as being equivalent to a central processing unit as recited in claim 1. The Examiner further cited Stefanksy, column 8, lines 25-40 as disclosing that microcontroller 224 runs an operating system. For reference, this portion of Stefanksy is reproduced below.

> With reference to FIG. 14, a microcontroller 224 and a minimum number of dedicated control support circuits direct all functions of disk drive 18. In the preferred embodiments of the present invention, microcontroller 224 is a three megahertz clock rate Motorola MC68HC11 HCMOS single chip microcontroller, as described in the MC68HC11A8 HCMOS Single Chip Microcomputer Technical Data Book (ADI 1207) available from Motorola, Inc., Motorola Literature Distribution, P.O. Box 20912, Phoenix, Ariz., 85036.
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> A read-only memory (ROM) 226 is coupled to the microcontroller 224 by way of a general purpose data, address and control bus 240. The ROM 226 is utilized to store a microcontroller control program for supporting five principle tasks necessary to implement the full functionality of the disk drive 18. These tasks include interface, actuator, spin motor, read/write and monitor.

Applicant notes that the above passage simply illustrates that microcontroller 224, "directs all functions of disk drive 18" apparently through a "microcontroller control program." However, the microcontroller control program in Stefanksy is not equivalent to an operating system. Stefanksy fails to disclose that microcontroller 224 operates any program other than the microcontroller control program and also fails to disclose that the microcontroller control program directs the processing of other programs. For example, Stefanksy fails to disclose that programs other than the microcontroller control program even exist. In this manner, Stefanksy

fails to disclose an operating system and the Examiner's rejection of claim 1 should be withdrawn.

Furthermore, in the Office Action with respect to claim 1, the Examiner acknowledged that Stefanksy fails to disclose the feature of wherein the data disc stores an application program run by the operating system as claimed, but that it would have been obvious to modify the disc drive of Stefanksy to incorporate such a feature in view of Schneider. In support of this point, the Examiner cited column 4, lines 5-16 of Schneider.

However, the portion of Schneider cited by the Examiner is related to an operating code for micro-controller of a secure disc drive.[1] Importantly, this operating code is not an operating system running an application program, and Schneider fails to consider that the micro-controller may run an operating system running an application program. In this manner, Schneider fails to overcome the deficiencies of Stefanksy as discussed above such that the subject matter of claim 1 would not have been obvious to one of ordinary skill in the art at the time of Applicant's invention.

Glover and Durrett also fail to overcome the deficiencies of Stefanksy in view of Schneider. For this reason, dependent claims 2-6, 25, 26 and 30-32 are allowable for at least the reasons independent claim 1 is allowable. Furthermore, the dependent claims include additional features that would not have been obvious to one of ordinary skill in the art at the time of Applicant's invention.

For example, with respect to claim 5, the Examiner cited Stefanksy as disclosing a three and one half inch form factor. However, because Stefanksy fails to disclose each of the features recited in claim 1, e.g., a CPU running an operating system, Stefanksy fails to teach one of ordinary skill in the art that such combination of features can fit into a package as small as a three and one half inch form factor. In fact, none of the applied references would have made it obvious ton one of ordinary skill in the art at the time of Applicant's invention that the combination of features recited in claim 1 could fit into a package as small as a three and one half inch form factor.

As another example, with respect to claim 31, the Examiner cited Durrett as disclosing a data disc that stores an application program including a word processor program. However, the

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[1] Schneider, column 4, lines 5-16 and column 5, lines 20-23.

disclosure of Durrett is generally directed to a computing device without a non-volatile memory that downloads software object elements from a virtual disk server.[2] While Durrett does disclose that such a device may optionally include a disk drive,[3] Durrett fails to suggest integrating the features of the disclosed computing device with those of a disk drive, e.g., as disclosed by Stefanksy. For example, Durrett fails to provide a rational reason to modify microcontroller 224 as disclosed by Stefanksy such that it would be capable of running an application program. Instead, as shown in FIG. 2, Durrett simply supports the well known computing device framework in which a CPU is a separate component from a disc drive.

As another example, with respect to claim 33 as amended, the applied references fail to teach or suggest a BIOS including boot code. In the rejection of claim 33, the Examiner cited Schneider as disclosing firmware that may be considered a BIOS. However, the disclosed firmware does not include boot code.

For at least these reasons, Applicant respectfully requests the Examiner withdraw the rejections to claims 2-6, 25, 26 and 30-32.

Claims 16, 17 and 28

As discussed previously with respect to claim 1, Stefanksy in view of Schneider fail to teach or suggest a processor running an operating system running an application program as claimed. Similar features of a memory mounted on the PCB storing an application program, wherein the application program is run by the operating system running in the CPU are recited in claim 16. Therefore, the cited references would not have made the subject matter claim 16 obvious to one of ordinary skill in the art at the time of Applicant's invention.

Dependent claims 17 and 28 are allowable for at least the reasons independent claim 16 is allowable. For at least these reasons, Applicant respectfully requests the Examiner withdraw the rejections to claims 16, 17 and 28.

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[2] Abstract.
[3] Column 1, lines 63-65.

Claims 18-22, 24 and 29

As discussed previously with respect to claim 1, Stefanksy in view of Schneider fail to teach or suggest a processor running an operating system running an application program stored on a data disc. Similar features of a memory mounted within the case, wherein the memory stores an operating system, and the central processing unit runs the operating system, wherein the operating system runs application software stored on the data disc are recited in claim 18. Therefore, the cited references would not have made the subject matter claim 18 obvious to one of ordinary skill in the art at the time of Applicant's invention.

Glover fails to overcome the deficiencies of Stefanksy in view of Schneider. For this reason, dependent claims 17 and 28 are allowable for at least the reasons independent claim 18 is allowable. For at least these reasons, Applicant respectfully requests the Examiner withdraw the rejections to claims 18-22, 24 and 29.

For at least these reasons, the Examiner has failed to establish a prima facie case for non-patentability of Applicant's claims 1-6, 16-22, 24-26 and 28-33 under 35 U.S.C. 103(a). Withdrawal of this rejection is requested.

New Claims

Applicant has added claims 34-36 to the pending application. The applied references fail to disclose or suggest the inventions defined by Applicant's new claims, and provide no teaching that would have suggested the desirability of modification to arrive at the claimed inventions. For example, the applied references fail to disclose or suggest the feature of a CPU generates read and write control signals and runs an operating system in combination with the additional features recited by claim 1.

No new matter has been added by the claims 34-36.

CONCLUSION

All claims in this application are in condition for allowance. Applicant respectfully requests reconsideration and prompt allowance of all pending claims. Applicant does not acquiesce with any of the Examiner's current rejections or characterizations of the prior art, and reserves the right to further address such rejections and/or characterizations.

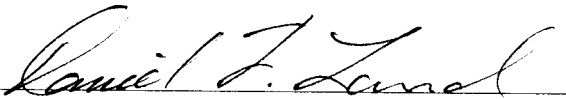Please charge any additional fees or credit any overpayment to deposit account number 50-1778.

The Examiner is invited to telephone the below-signed attorney to discuss this application.

Date: By:

April 10, 2008
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